

In this talk, we present the light curves of two SNe IIP, SN 2014cx (NGC337) and SN 2017eaw (NGC6946), using our IMSNG data. A newly developed technique, the Photometric Color Method (PCM), employs only photometric data to estimate distances for SNe IIP. We present the distances to our targets measured through PCM and compare this to that of obtained via other methods.

[ㄱ GC-03] A Search for Low Surface Brightness Dwarf Satellite Galaxies in Low Density Environments Using IMSNG

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Searching for low surface brightness (LSB) dwarf galaxies in low density environments (isolated and group) can help us resolve the discrepancy between observation and theory known as the 'missing satellite' problem. They are also important to study the evolution of low mass galaxies in these environments. Although the number of dwarfs in such environments is rapidly increasing in many recent studies, it is still not easy to characterize their general properties. Motivated by this, we present preliminary results of our search for LSB dwarf galaxies around 60 nearby galaxies ($D < 50 \text{Mpc}$) using deep optical images. Imaging data from Maidanak Astronomical Observatory (MAO) in Uzbekistan as a part of Intensive Monitoring Survey of Nearby Galaxies (IMSNG; Im in prep.) and other archival data are used to find previously unknown LSB dwarf galaxies. Extended LSB sources (central surface brightness $\mu_0 > 23 \text{ mag/arcsec}^2$) are first selected in the μ_0 - magnitude plane (Rines & Geller 2008). The dwarf galaxy candidates are chosen by visual inspection. We discuss whether these candidates are actual satellite galaxies, by measuring the projected number densities in group environments and in the field. Also, their structural and photometric properties are compared with those of previously discovered dwarf galaxies in the literature.

[ㄱ GC-04] Luminosity Distribution of Dwarf Elliptical-like Galaxies

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We present the structural parameters of ~ 910

dwarf elliptical-like galaxies in the local universe ($z \leq 0.01$) derived from the r-band images of the Sloan Digital SKy Survey (SDSS). We examine the dependence of structural parameters on the morphological types (dS0, dE, dEbc, dSph, and dEblue) and the environment. There is not much difference in the structural parameters among the five subtypes but the mean surface brightness within the effective radius ($\langle \mu_e \rangle$) of dSph galaxies is clearly different from that of other subtypes. The frequency of disk features such as spiral arm, bar, lens, and rings strongly depends on the morphology of dwarf elliptical-like galaxies with no disk features in dSph galaxies. The absence of disk features and the low surface brightness of dSph galaxies are thought to be closely related to their low mass which leads to different evolution from other subtypes of dwarf elliptical-like galaxies. Density Environments Using IMSNG

[ㄱ GC-05] WITNESSING DISSOLUTION OF A STAR CLUSTER IN THE SEXTANS DWARF GALAXY

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We report a possible discovery of a relic of a dissolved star cluster in the Sextans dwarf spheroidal galaxy. Using the hk index ($\equiv (\text{Ca-b}) - (\text{b-y})$) as a photometric metallicity indicator, we have successfully discriminated the metal-poor and metal-rich stars in the galaxy and found an unexpected number density peak of metal-poor stars near the galaxy center. The analysis of color-magnitude diagrams reveals that they appear to be originated from an old, metal-poor globular cluster which might be slightly farther than the bulk of field stars in the galaxy. This supports the presence of the star cluster remnants in the galaxy which have been suggested by previous studies. If confirmed, dissolution of a star cluster provides a piece of evidence of a cored dark-matter halo profile for the Sextans dwarf galaxy.

[ㄱ GC-06] Spectral Analysis of the Seyfert Galaxy NGC 4051 and Mrk 79

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We study the kinematical properties of the Seyfert galaxy, NGC 4051 and Mrk 79. The data